UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,071	02/27/2002	Asim Hussain Abbasi		6702

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ASIM H. ABBASI
53 VETERANS DRIVE
SOUTH RIVER, NJ 08882

EXAMINER
SHORTLEDGE, THOMAS E

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-4,6-8,12-15 and 17* is/are rejected.
7) ☒ Claim(s) *5,9-11,16,18* is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Information Disclosure Statement

1.   The listing of references in the specification is not a proper information disclosure

statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the

list may not be incorporated into the specification but must be submitted in a separate

paper." Therefore, unless the references have been cited by the examiner on form

PTO-892, they have not been considered.

Specification

2.   The disclosure is objected to because of the following informalities: Page 9 of the

specification discusses checking the content of register AH shown in Figure 5C.

However, figure 5C does not show register AH, rather, BH. The examiner believes that

the applicant meant to refer to figure 5E, which depicts the process discussed on page

9.

        Appropriate correction is required.

3.   The disclosure is objected to because of the following informalities: The

disclosure is objected to because the term "voice recognition" is misused for what

nowadays is called -- speech recognition -- in speech signal processing art. While

"voice recognition" and "speech recognition" were both once used interchangeably to

refer to spoken word recognition, nowadays these two terms are distinguished. The

term "voice recognition" now denotes identification of who is doing the speaking (class

704/246), while "speech recognition" (or "word recognition") denotes identification of

what is being said (class 704/251). So, appropriate correction to the proper terms of art

is required.

Claim Objections

4.   Claims 3, 9 and 11 are objected to because of the following informalities:

Claim 3 recites "those said bits," where "those" is informal language.

Claims 9 and 11 recite "in case we are using" which is informal language.

Claim 10 recites "i.e.", which is informal language and where language "such as"

or "where" should be used.

Appropriate correction is required.

Allowable Subject Matter

5.   Claims 5, 9-11, 16, and 18 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

6.   The following is a statement of reasons for the indication of allowable subject

matter:

Claims 5 and 16 recite using three frames of bits, where the first frame is

Network_ID, the second is Device_ID, and the third is command.

Douglas (5,335,313) and Gaucher (6,175,860) teach controlling the devices

through commands. However, Douglas does not teach using three frames of bits.

Claim 9 recites using AX register to store recently converted bits, BL register to

store Network_ID when using 4-bit dip switch and CX register to store the Device_ID

when using 8-bit.

Neither Douglas or Gaucher teach using an AX register to store the converted

bits, nor a BL and CX register to store the Network and Device ID's.

Claim 11 recites comparing registers to find matches between the Network_ID

and Device_ID of the transmitter and each device to find the proper device to send the

command to.

Neither Douglas nor Gaucher teach comparing registers to find matches between

the output of the transmitter and the proper device to be controlled.

Claim 18 recites first looking for matches between the Network_ID's of the PC

and the devices, and then if a match if found, looking for a match between the

Device_ID's, and if a match if found, giving the command to the device. Where the

command frame is either 0001 for turning on the device or 0000 for turning off the

device.

Douglas and Gaucher teach outputting a command to a correct device using a

series of relays to turn the device on and off.

Neither Douglas nor Gaucher teach matching the command frame is either 0001

for turning he device on and 0000 for turning the device off.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

   The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 2, 3, 5, 8, 9, 11, recite the limitations:

   the PC (claim 1, line 3, claim 12, line 3);

   the serial port (claim 1, line 5, claim 12, line 5),

   the signal (claim 3, line 3),

   the bits (claim 3, line 4),

   the relay (claim 3, line 10),

   said Network_ID (claim 5, line 3, claim 6, line 3, claim 8, line 4, claim 9, line 8,

claim 11, line 2, claim 16, line 3, claim 17, line 4, claim 18, line 2),

said Device_ID (claim 2, line 3, claim 5, line 5, claim 6, line 3, claim 8, line 3,

claim 9, line 12, claim 11, line 6, claim 16, line 5, claim 17, line 2, claim 18, line 3),

the value (claim 9, line 11),

said AL (claim 11, line 2),

said BL (claim 11, line 3),

said "Serial-in, Serial Out" (claim 11, line 6),

said AX (claim 11, line 7),

said CX register (claim 11, line 7),

said AH register (claim 11, line 17),

the sound card (claim 12, line 14),

the audio signal (claim 12, line 15),

There is insufficient antecedent basis for these limitations in the claims. The

examiner has interpreted the above "the" or "said" to read as "a".

3.   Where applicant acts as his or her own lexicographer to specifically define a term

of a claim contrary to its ordinary meaning, the written description must clearly redefine

the claim term and set forth the uncommon definition so as to put one reasonably skilled

in the art on notice that the applicant intended to so redefine that claim term. *Process

Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed.

Cir. 1999). The term "voice recognition" in claims 1,7,8,12-14, and 17 is used by the

claim to mean "speech recognition", while the accepted meaning for the term "voice

recognition" now denotes identification of who is doing the speaking, while the accepted

meaning for "speech recognition" denotes identification of what is being said. So,

appropriate correction to the proper terms of art is required.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-4, 6, 7, 12-15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Douglas, in view of Gaucher and in further view of applicant's

disclosed prior art.

As to claims 1 and 12, Douglas teaches:

software that runs on a PC and has embedded voice (speech) recognition

engine (H.E.R.O. system using voice-actuated computer technology, col. 5, lines 23-

24);

a protocol using said software after recognizing the voice command to

communicate (binary/digital data input corresponding to a particular voice command,

col. 8, lines 54-56).

audio receiver attached with the microphone input of a sound card in the said

PC, used to demodulate the audio signal, (the microphone is connected to the voice

card, which is connected to the voice system, col. 6, lines 29-31)

an audio transmitter module, (a computer system, (col. 5, lines 30) The

computer would necessarily have speakers attached to it, since the computer is a

standard IBM PC, AT, XT or compatible computer, col. 5, lines 29-31).

Douglas does not teach:

a transmitter that is attached with PC running said software,

receiver module attached with each device to be controlled,

However, Gaucher teaches:

a transmitter that is attached with PC running said software, (Fig. 3, elements 12

and 18);

receiver module attached with each device to be controlled, (Fig. 3, element 33);

Therefore it would have been obvious to one of ordinary skill in the art at the

time of the invention to combine the voice controlled system of Douglas with the

wireless system of Gaucher to provide cost effective performance solutions for

computer networks, as taught by Gaucher, (col. 1, line 12-13).

Douglas and Gaucher do not teach attaching the transmitter by the serial port.

However, the prior art indicated by the applicant discloses that devices can

communicate using a serial port interface.

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to combine the voice controlled system of Douglas with the wireless

system of Gaucher and with the serial interface of the prior art to create a simpler

design as the serial ports available within the computer system and designed to

communicate with other electrical devices.

As to claim 2, Douglas does not teach said receiver module has two dip-

switches, one meant for setting Network_ID and must be same for all the wherein said

receiver modules in a system, other meant for setting the Device_ID and must be

unique for each wherein said receiver module.

However, Gaucher teaches the devices connected to the network have a unique

registration and serial number which can be set by switches, where the code includes

information for the master to know what class of device it is, and what communication

protocol is needed to communicate with the device, (col. 8, lines 47-50)

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to combine the voice controlled system of Douglas with the wireless

system of Gaucher to provide cost effective performance solutions for computer

networks, as taught by Gaucher, (col. 1, line 12-13).

As to claim 3, Douglas teaches a switching circuit which receives order from said

microcontroller and drives the relay for turning wherein said devices on/off (a controller

card connected to the computer system, where the controller card is able to control the

relays connected to each device, able to turn the device on and off, col. 7, line 66

through col. 8, line 5).

Douglas does not teach:

a receiver operating on FSK/ASK technique and has the ability to convert the

signal received from wherein said transmitter in the bits;

a microcontroller receives said bits serially; nor

a firmware in said microcontroller rom is used for the implementation of wherein

sad protocol.

However, Gaucher teaches a receiver operating on FSK/ASK technique and has

the ability to convert the signal received from wherein said transmitter in the bits (using

a transmitter that is capable of using FSK, (col. 7, lines 57-58). It would be inherent

within the definition of FSK, that the signal is converted into bits).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to combine the voice controlled system of Douglas with the FSK

capabilities of Gaucher to provide cost effective performance solutions for computer

networks, as taught by Gaucher, (col. 1, line 12-13).

Douglas and Gaucher do not teach:

a microcontroller receives ⋯ said bits serially; nor

a firmware in said microcontroller rom is used for the implementation of wherein

sad protocol.

However, the prior art disclosed by the applicant discloses:

a microcontroller receives said bits serially (a microcontroller with serial ports,

where these serial ports are able to communicate the data serially, page 3); and

a firmware in said microcontroller rom is used for the implementation of wherein said protocol (firmware within the rom of the microcontroller, where the firmware is conceived from the software, page 3).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the voice controlled system of Douglas with the wireless system of Gaucher and with the serial interface of the prior art to create a simpler design as the serial ports available within the computer system and designed to communicate with other electrical devices.

As to claim 4, Douglas does not teach said transmitter broadcasts bits received from wherein said software through serial port based on FSK/ASK technique.

However, Gaucher teaches a receiver operating on FSK/ASK technique (using a transmitter that is capable of using FSK, (col. 7, lines 57-58).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the voice controlled system of Douglas with the FSK capabilities of Gaucher to provide cost effective performance solutions for computer networks, as taught by Gaucher, (col. 1, line 12-13).

As to claim 6, Douglas teaches software is to be configured before use with the receiver modules in the system by entering first the said Network_ID, second the said Device_ID and last assigning each said receiver module with a name; said name will

then be used as a voice command (each device is assigned a relay number along with

a device name and command as an input, col. 8, lines 1-6).

Douglas does not teach a transmitter and receiver.

However, Gaucher teaches a wireless network with a transmitter and receiver,

(Fig. 3, elements 12, 18, and 33).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to combine the voice controlled system of Douglas with the wireless

system of Gaucher to provide cost effective performance solutions for computer

networks, as taught by Gaucher, (col. 1, line 12-13).

As to claim 7, Douglas teaches said microphone is used to convert said voice

commands spoken by system user into electrical signal, (a microphone as an input, (col.

6, lines 29-30). It is inherent within the definition of a microphone that the microphone

turns an input into an electrical signal).

As to claim 13, Douglas teaches a microphone used to convert spoken voice

commands into electrical signals (a microphone as an input, (col. 6, lines 29-30). It is

inherent within the definition of a microphone that the microphone turns an input into an

electrical signal).

Douglas does not teach an audio transmitter that transmits the voice command

using technique FM/AM.

is
However, Gaucher teaches using a low cost system of FSK, which digital FM,
^
(col. 7, line 67 through col. 8, line 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to combine the voice controlled system of Douglas with the wireless

system of Gaucher to provide cost effective performance solutions for computer

networks, as taught by Gaucher, (col. 1, line 12-13).

As to claim 14, Douglas teaches the user will speak any voice command, (voice

commands given by the patient are transmitted through the microphone, col. 6, lines 15-

16).

Douglas does not teach the audio transmitter module is placed in every room of a

house.

Gaucher teaches a wireless network containing transmitters (Fig. 3, elements 12,

70,31, 18, 72, and 33). It would be obvious to one of ordinary skill in the art at the time

of the invention to allow for a module to be placed in different rooms, to increase the

usability of the system.

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to combine the voice controlled system of Douglas with the wireless

system of Gaucher to provide cost effective performance solutions for computer

networks, as taught by Gaucher, (col. 1, line 12-13).

As to claim 15, Douglas does not teach an audio receiver will demodulate the signal received from the said audio transmitter module.

However, Gaucher teaches a wireless network containing transmitters and receivers (Fig. 3, elements 12, 70,31, 18, 72, and 33). It would be necessary that each receiver would be able to demodulate the signal received from the transmitter.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the voice controlled system of Douglas with the wireless system of Gaucher to provide cost effective performance solutions for computer networks, as taught by Gaucher, (col. 1, line 12-13).

6.   Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas in view of Gaucher in further view of acknowledge prior art, as applied to claims 1 and 12 above, and further in view of O'Reilly (Bit Order).

As to claim 8, Douglas teaches:

software will build wherein said protocol based on the voice command recognized and corresponding wherein said Device_ID identified (training the voice system to create a template of commands, where the input commands can then be recognized by the operating system, and interpreted into a corresponding act, col. 6, lines 40-50).

said software will then send first the wherein said Network_ID, second the

wherein said Device_ID, and last the wherein said Command (the command "hero light

on" tells the "hero" system that the device "light" is to be turned "on", col. 9, line 37).

Douglas, Gaucher and the prior do not teach first sending the Least Significant

Bit (LSB).

However, O'Reilly teaches it is very common to first read the least significant bit

(page 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to combine the voice controlled system of Douglas with the wireless

system of Gaucher with the serial interface of the prior art and with the least significant

bit of O'Reilly to create a simpler design and the compatibility of the system.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Diehl et al. (6,052,666), Teece (5,537,605), Buchner et al.

(6,535,854), Borgstahl et al. (5,909,183), and Gilbert (5,530,896).

Diehl et al. teaches communicating between devices by using speech based

man-machine communication system.

Teece teaches controlling pieces of equipment to be controlled by a control unit.

Buchner et al. teach controlling devices within a home network by using speech.

Borgstahl et al. teach communicating commands to devices through a wireless network.
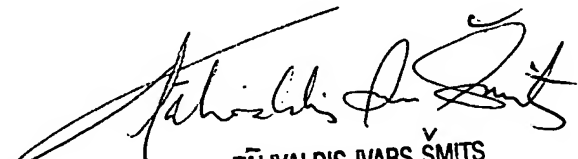
Gilbert teaches connecting devices to a network and communicating with these devices connected in the network.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E Shortledge whose telephone number is (703)605-1199. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703)306-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TS
2/25/2005

TALIVALDIS IVARS SMITS
PRIMARY EXAMINER